

SRG / eROSITA Early Data Release:

Observation report eRO_MPE_RP_EDR_300017-1

Observation	Target	Type	Mode
300017-1	TGUH2213P1 Cloud	Dark MPE	Pointing

R.A.	Dec	α	δ	l	b
$19^h 2^m 22^s$	$-37^\circ 7' 26''$	285.5910°	-37.1240°	359.7998°	-18.0003°

Purpose of observation:

PV observation. Title: Utilizing the new window to carbon-line astrophysics of the Local Interstellar Medium.

Related Observations:

none

Notes:

This observation has been executed as a Pointing.

TM2 is noisy at low energies, which is cleaned with the following filter in Liu et al. (submitted)

```
pm00_300017_220_EventList_c001.fits" [1] [PI>300] "
```

Liu et al. (submitted) adopted `gti="625403730 625409610"` and `gti="625409790 625459760"` to select the time of stable pointing.

Some information on the status of the cameras:

T_{start}, T_{stop}: values are taken from the eROSITA mission planning files and should be considered as approximate values. Please refer to the time header keywords in the event file for the more accurate value which takes into account the Good Time Intervals (GTI).

Exposure: exposure times are calculated from start and stop times given in the eROSITA mission planning files, however, observations could have slightly shorter exposures due to IDLE periods of the cameras which are not considered

Filter wheel and camera status are given per observation, but changes during an observation are not documented, instead the best value according to the following ranking is applied:

Filter wheel: filter, open, calibration, closed

Camera status: working, not processing

Camera	T _{start} [UTC]	eROday	T _{stop} [UTC]	eROday
TM1	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM2	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM3	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM4	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM5	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM6	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71
TM7	2019-10-26T08:16:04	43431.82	2019-10-26T23:49:24	43435.71

Camera	Exposure [s]	Filter	Processing	Set-up
TM1	56000.0	FILTER	PMENV2	working
TM2	56000.0	FILTER	PMENV2	working
TM3	56000.0	FILTER	PMENV2	working
TM4	56000.0	FILTER	PMENV2	working
TM5	56000.0	FILTER	PMENV2	working
TM6	56000.0	FILTER	PMENV2	working
TM7	56000.0	FILTER	PMENV2	working

Acknowledgement:

This work is based on data from eROSITA, the soft X-ray instrument aboard SRG, a joint Russian-German science mission supported by the Russian Space Agency (Roskosmos), in the interests of the Russian Academy of Sciences represented by its Space Research Institute (IKI), and the Deutsches Zentrum für Luft- und Raumfahrt (DLR). The SRG spacecraft was built by Lavochkin Association (NPOL) and its subcontractors, and is operated by NPOL with support from the Max Planck Institute for Extraterrestrial Physics (MPE). The development and construction of the eROSITA X-ray instrument was led by MPE, with contributions from the Dr. Karl Remeis Observatory Bamberg & ECAP (FAU Erlangen-Nuernberg), the University of Hamburg Observatory, the Leibniz Institute for Astrophysics Potsdam (AIP), and the Institute for Astronomy and Astrophysics of the University of Tbingen, with the support of DLR and the Max Planck Society. The Argelander Institute for Astronomy of the University of Bonn and the Ludwig Maximilians Universitt Munich also participated in the science preparation for eROSITA.

References:

- Predehl, P. et al., The eROSITA X-ray telescope on SRG, *A&A*, vol. 647, 16 pp. (2021)
Liu et al. (submitted)